

With Dr. Mackinder's Compts

THE

Urban District Council

of Gainsborough.

ANNUAL

* REPORT *

OF THE

Health, Sanitary Condition, &c.,

FOR THE YEAR 1896,

BY

DRAPER MACKINDER, M.D., F.R.C.S.E.,

Corresponding Member of the Epidemiological Society; Fellow of
the Society of Medical Officers of Health, &c.,

MEDICAL OFFICER OF HEALTH.

Amcoats & Co., Printers, Lord Street, Gainsborough.



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TO THE
*Chairman and Councillors of the Urban
District Council of Gainsborough.*

The Medical Officer's Report for the year 1896.

GENTLEMEN,

"Viewed from the standpoint of sanitation the year 1895 left to us the impress of encouraging progress for future generations to study, improve and perpetuate. The seasons we cannot regulate, for they come and go in fulfilment of an unerring law; nor can we arrest or speed the friendly or militant cloud. Even the sunbeams play around us irrespective of our will or desert and seem so kindly to dictate the path over which we should travel for our own and others' good. We cannot change the Omnipotent ruling, but we can think and remember that the law which governs the Universe governs ourselves who are simply selected bits of automatic machinery turned out of Nature's majestic workshop for ultimate use and exhibition! —and act accordingly.

Onward we have been moving and still we continue to move up the pathway of enlightenment and freedom, not without the opposition of sundry barricades of a material and immaterial character to overcome, be it remembered, but still onward and with quickening pace, like a victorious host with truth and honour in its van and rear inviting and propelling unyielding advance.

Our legitimate enemies are darkness and dirt, and the accumulations, visible and invisible, of pollutions of every kind which tend to the deterioration of moral and physical health; and against these we fight, assured as we are by the doings of others as well as ourselves that purity and light, in whatever garb, are the safest passwords to happiness and success.

Year by year let our progress be worthy of us, and our retrospect satisfactory."

Such were my sentiments last year, as expressed in my report for 1895, and such are they now.

1896.

The year 1896 presented to us nothing phenomenal either in the weather or in the amount and character of the prevailing disease. For the seasons were not strongly defined, but rather kindly shaded off with neutral tints as they passed the boundary lines, so that our inner-selves were not especially uncomfortable as we made our progress from the first to the last month of the year.

The most remarkable information which we obtained was that which the quicksilver told about the ranges of temperature on the separate days, which was considerable throughout the year. The following are the days of greatest variation in every month, expressed in degrees Fahrenheit:—

January 15	=	21 deg.	July	6	=	45 deg.
February 27	=	25 ,,	August ... 1		=	32 ,,
March ... 24	=	33 ,,	Sept	3	=	34 ,,
April 15	=	36 ,,	October ... 1		=	23 ,,
May 12	=	53 ,,	Nov. 1		=	24 ,,
June 1	=	40 ,,	Dec. 1		=	20 ,,

And the days of minimum temperature:—

February 26	=	18 deg.	— the lowest of year.
November 30	=	19 ,,	
December 1	=	20 ,,	

And the days of highest temperature, in the shade:—

May ... 12	=	89 deg. equal.
June .. 16	=	
July ... 13	=	

THE HOT DAYS promote fermentation and decomposition and kill the children with Diarrhoea; but did not kill any of ours in 1896.

THE COLD DAYS kill the old people and delicate young, as will be noticed by a reference to my table.

But these variations of temperature have their good as well as their evil influences, since they are by no means the least factors in dominating the building up of that hardy and energetic concrete cycloped JOHN BULL.

Thirty years ago, when Gainsborough had less than half its present population, its *Death rate per thousand* was nearly double of what it is now; for then it was estimated at 22; at the end of 1896 it was 12.7, the lowest mortality since I became your Medical Officer of Health. And this red letter mark—12.7—more than any other, should cheer us in our hours of toil and stimulate us in our endeavour to achieve still higher excellence than the retrospect of accomplished deeds presents to our view.

12.7 *per thousand* is indeed a very low Death rate for such a town as ours which, yet, in some of its less frequented parts clings fondly to the dwellings which people called homes ere the window tax had been repealed or daylight was thought to be a necessity of human existence!

It may be these poor folk cannot do otherwise than remain where they are, as they have not the wherewith to occupy the better houses now so much sought after. Perhaps, after awhile, some of these close yards will be opened out into streets where low rented dwellings may be built for the benefit of the impecunious who must live near to the place where they are wanted.

Tenements for the artisans keep rising, but don't find occupants quite so numerous as they were.

As usual I have added to this Report some Tables which I think will be of use for reference by those who wish for more minute information than is conveyed above. I should like to multiply the number, but the time and fatigue necessary for their production is beyond my ability to encounter at the present season.

The table on page 72 shows that our Rainfall was less and our dry days more than the average as recorded at Greenwich for 50 years.

The Area of Gainsborough and its Population.

The area of our Town is 2,118 acres and its population according to the census of 1871 was 7,564; 1881—10,939; 1891—14,346; at the end of 1891 it was approximately 14,601; at the end of 1892 it was 15,000; at the end of 1893 it was 16,000; at the end of 1894 it was 17,000: at the end of 1895—18,000; at the end of 1896—18,750, the natural increase for the year being 229 + immigration 521, equal 750, according to my estimation.

The average annual augmentation of our people was 1871—1881 equal to 337.5; 1881—1891 equal to 340.7; estimated for 1892 equal 399; 1893 equal 1,000; 1894 equal 1,000; 1895 equal 1,000; and 1896 equal 750, or 250 less than the 3 preceding years. A temporary arrest of development, or a little wave just come to forewarn us of the great billow that means to greet us during the Queen's Diamond Jubilee.

Houses.

At the census of 1871 the number of houses were 1,680; at the census of 1881 the number of houses were 2,319; at the census of 1891 the number of houses were 2,931.

From the census 1891 to the end of that year 53 more houses were built, and during the year 1892—144 equal 197 plus 2,931 equal 3,128 at the end of 1892. In 1893 there were 180 houses built, making at the end of December 3,308; in 1894 there were 99 more added, equal 3,407; in 1895 there were 166 houses built, equal 3,573: and in 1896, Mr. Riley informs me, there were 132 additional new ones, equal 3,705 at the end of the year 1896.

The 1680 mentioned in the census of 1871 were the houses then occupied, the unoccupied ones not being enumerated. Of the 2,319 houses of the census of 1881, 68 were minus tenants; in 1891 a few only were empty, and in 1892—3—4 deserted houses were the reverse of plentiful, and the few that were kept possession of the impecunious slum districts, and remain on sufferance only. For the tendency to migrate to the outer ring is a perceptibly growing quantity, and the distenanted dwellings must eventuate in the erection of better ones with more open and more healthy surroundings. Nearly all the new houses are occupied before they are finished.

Hence in the decade 1871—1881 there were built.....	639 houses
in the decade 1881—1891 there were built.....	612 houses
from the census 1891 to the end of the year	53 houses
during the year 1892 there were built.....	144 houses
,, ,, 1893 ,,	180 houses
,, ,, 1894 ,,	99 houses
,, ,, 1895 ,,	166 houses
,, ,, 1896 ,,	132 houses

making a total at the end of 1896 of 3,705 houses, of which about 150 were empty at the end of the year, one third of them being in a state of advanced delapidation.

The number of occupants per house were—

in 1871—4.50
in 1881—4.85
in 1891—4.72
in 1892—4.71
in 1893—4.83
in 1894—4.90
in 1895—5.00
in 1896—5.10

And this 5.10 per house is after subtracting 50 from 3,705 houses in the town—in other words the calculation is made on 3,655 houses only, which is probably correct, the slight increase per house depending upon the rush to the better ones from the depopulated yards.

The remaining hundred empty houses, in all probability will be retenanted after being put into a more inviting and healthy condition, since there must always be a demand for low-rented dwellings near the centre of the town, and boundary walls are not beyond the power of the Surveyor's head and disrupting hand.

And this 5.10 inhabitants per house, though a small decimal increase on the previous years, not only endorses, as I formerly wrote, my calculation of our present population, but demonstrates in a remarkable manner the persistent ratio of houses and people, and, I might add, emphasises our progress in all that tends to elevate and felicitate those for whom our best endeavours are rarely found wanting.

The new houses are chiefly the dwellings of our upper artizans, for the lower strata smaller ones, healthy and low-rented, are still a desideratum; though I am glad to find that our poorest helpers are being quietly provided with homes worthy of the name so dear to every human heart. And my pleasure is enhanced by the emulation I witness among the Cottagers wherever I thread my way along the new streets and roads of our expanding town. Emulation in neatness and sweetness and adornments of every kind, especially the outside decorations to which fair Flora lends a generous hand. For by such works the Sanitarian knows that health and every quality of our nature is improved and diffused for the welfare of all.

Births.

Tabular view of the Quinquenium ending December 31st 1896.

Children born in—

1892	Males	254	Females	214	Total	478	=	31.86	per 1000
1893	„	279,	„	251	„	530	=	31.20	per 1000
1894	„	290,	„	261	„	551	=	32.41	per 1000
1895	„	267,	„	295	„	564	=	31.33	per 1000
1896	„	259,	„	232	„	491	=	26.10	per 1000

The wheel has turned and Malthus is jubilant. Instead of following the rule of the previous years as shewn by the table above, the ascending has been changed for a descending scale to the number of minus 73.

And more ominous still, the males have headed the pole by 27.

Disproportion of the Sexes.

In 1892, out of 478 births, there was an excess of 50 males;									
„ 1893, „ 530 „ „ „ „ „ „ „ „									
„ 1894, „ 551 „ „ „ „ „ „ „ „									
„ 1895, „ 564 „ „ „ „ „ „ „ „									
„ 1896, „ 491 „ „ „ „ „ „ „ „									

Last year I thought the predominance of females in 1895 might be owing to the sagacity of the ladies who had compelled their husbands to return a Unionist Government; and to the same philosophic Venususes I think we are deeply indebted for the way in which our rulers are managing the Nation's domestic Matters. For war is mowing down the brave eligibles and the balance of humanity would soon preponderate on the beautiful non-combatant side, but for the proviso—that more males must be forthcoming.

The little boys will big boys grow
 After a little while,
 And little girls spring up also
 And skip and sing and smile.

As well they may, for Nature kind,
 Disliking cruel Mars,
 Has made them Sweethearts to their mind
 Ruled by the other stars
 Who deal in rings for Gods above
 Who wed the Angels all for love !

The most and least prolific months of the last 5 Years.

In 1892	August	most	M. 32	F. 15	= 47
„	June	least	„	„	M. 3 F. 7 = 10
In 1893	April	most	„	„	M. 31 F. 26 = 57
„	February	least	„	„	M. 21 F. 12 = 33
In 1894	June	most	„	„	M. 26 F. 27 = 53
„	Sept.	least	„	„	M. 16 F. 21 = 37
In 1895	January	most	„	„	M. 31 F. 28 = 59
„	February	least	„	„	M. 20 F. 20 = 40
In 1896	March	most	„	„	M. 28 F. 20 = 48
„	January	least	„	„	M. 19 F. 15 = 34

In this year 1896, April vied with January for the minimum of 34, but turned one of the girls into a boy and so preserved the total unchanged.

As before observed these little helpless brats disregard the vicissitudes of weather and come at all seasons without any preparation and with less than the railway Porter's politeness, for they never say—"by leave!" It's always, I'm here! phonetically expressed and understandable to all the world. Moreover they are wholly uneducated—in the ordinary sense of that word—and defy the Factory and Workshops Acts—nay more, they presume too much and without passing through even the form of an Apprenticeship, they command the services of the most skilled, and everlastingly find fault when their own wants are not immediately attended to.

Remembering, however, the extent of the Empire over which these *tinies* when fully developed will be permitted to wander with their *emblems of freedom for all*; remembering that every Zenith has its Nadir, every point its antipodes, every burning surface its opposing floe; it is well that our children should be born in seasons befitting their destined after lives. Summer brats for hot climes; winter brats for the Nansen ice; and spring and autumn for the temperate zones. In other words, our children should be classified and marked and trained according to fitness for special district work. This arrangement would be a very potent means, not only of saving life and increasing and diffusing knowledge, but of contributing materially to the sum total of earthly happiness.

Unphilosophical mothers and nurses, in the vehemency of mistaken affection, sometimes try to accomplish this adaptation of constitutional peculiarities—idiosyncracies—to universal ends by submerging their cold children in too hot water or leaving the poor things to scorch their cuticular investment by a remorseless fire; or, what is too often the case, in order to harden them submit the tender bodies of their feeble offsprings to such icy surroundings as they themselves would take care to avoid.

And thus the table of our infant mortality is lengthened at both ends—the hot and cold extremes.

The next century may have much to reveal.

The beautiful exotic was planted in the winter garden, by mistake—and it died!

Deaths.

The deaths in 1892 were 114 males, 125 females, = 239 = 15.93 per 1,000
,, 1893 , , 157 , , 150 , , = 307 = 17.20 , ,
,, 1894 , , 135 , , 105 , , = 240 = 14.23 , ,
,, 1895 , , 169 , , 120 , , = 289 = 13.25 , ,
,, 1896 , , 151 , , 111 , , = 262 = 12.07 , ,

The most and least fatal months of the last 5 years.

In 1892 January was the most fatal month, males 12 females 17 = 29
,, June , , least , , 3 , , 7 = 10
In 1893 July , , most , , 24 , , 21 = 45
,, June , , least , , 10 , , 5 = 15
In 1894 October , , most , , 13 , , 14 = 27
,, July , , least , , 7 , , 3 = 10
In 1895 February , , most , , 17 , , 13 = 30
,, May , , least , , 9 , , 3 = 12
In 1896 December , , most , , 19 , , 13 = 32
,, November , , least , , 7 , , 11 = 18

Number of deaths at different year ages for last 5 years.

there were	under 1	1—5	5—15	15—25	25—60	60 upwards.
In 1892 of 239	78	27	9	14	52	59
In 1893 of 307	89	32	7	13	75	91
In 1894 of 240	86	18	15	5	54	65
In 1895 of 289	114	30	8	7	58	72
In 1896 of 262	80	29	5	13	53	82

Quinquennial division of Deaths of 60 years and upwards, from January 1st, 1892, to December 31st, 1896. Separating the Sexes.

60—65	65—70	70—75	75	80	85	85—90	90—95	95—100
M.	F.	M.	F.	M.	F.	M.	F.	M.
1892	4	8	5	11	4	6	12	5
1893	9	7	4	9	4	6	13	8
1894	7	2	5	6	7	6	9	4
1895	5	5	10	4	7	8	14	5
1896	8	7	9	8	8	7	10	4

The Tables above will show at a glance not only the Sanitary condition of our town during the year 1896, but, by inference, its material prosperity, since the Sanitarian always plies his vocation amid strongly opposing forces when the cupboards are empty, the boots worn out, the elbows and knees conspicuously veneerd with something less comforting than woven locks; besides the dishevilled hair and the hollow face which depict too plainly the proclamation from within that—this moving tabernacle of a sadly pinched soul is “to be let—unfurnished!”

With us longevity is not a meaningless term, for in 1893 one man kept his ninetieth anniversary; in 1894 one woman her ninety-fifth; in 1895 two women saw the end of their ninetieth, while this 1896 year bade adieu to a man of four score years and ten, and a woman who was born five years before him.

Our people must be doing well, as previously intimated, for the 80 below the first year and the 82 above the 60th, subtracted from the 262, limit the intervening space sufficiently to demonstrate the fact that with us childhood is fairly healthy, youth reasonably vigorous, middle age encouraging, and even the snowy winter of life is made comfortably enjoyable by the thrift and affection of those on whose unremitting attention the seniors of our generation so trustfully repose.

Calendar of Deaths in the Union Hospital,

1896.

Date.	Sex.		Age.	Disease.
	M.	F.		
January	m.	...	71	Enteritis.
”	m.	...	85	Paralysis
”	m.	...	86	Epilepsy
”	...	f.	90	Paralysis
February	m.	...	76	Right hemiplegia
March	m.	...	84	Simile decay
”	...	f.	36	Epilepsy
”	...	f.	74	Paralysis
April	m.	...	73	”
”	...	f.	75	”

May	m.	...	69	Right hemiplegia
„	m.	...	71	Paralysis
„	m.	...	75	Mitral stenosis
„	...	f.	43	Psoriasis and lepra
June	m.	...	79	Paralysis
„	...	f.	14	Phthisis
July	m.	...	74	Bronchitis
August	m.	...	87	Catarrh
„	...	f.	67	Paralysis
September	m.	...	43	Acute rheumatism—heart
October	...	...	...	...
November	m.	...	76	Bronchitis
„	...	f.	77	Valvular dis. heart— paralysis
December	m.	...	63	Carbuncle
„	m.	...	81	Softening of brain
„	m.	...	1	Catarrh
Total	| 17 | 8 | 1670 | an average of 66.8 years.			

But if we deduct the five juniors whose ages are 1, 14, 36, 43, 43 years, equal 137, the twenty seniors will equal 1533, or an average of 76.6 each.

As will be observed the deaths in 1896 were 25, one less than the preceding year, and of these there were 17 males and 8 females, and of the 25 there were 20 whose ages were upwards of 60 years, viz:

In the decade 60—70 there were 3

„ 70—80 „ 11

„ 80—90 „ 5

„ 90—100 there was 1 woman who

formed the keystone of the Ancient Arch which perpetuates the interest which so many take in this long-living Institution.

General Observations.

When we remember that into our Union Hospital are brought some of the bad cases from other Districts, some of them with one foot on the brink of the grave and others with incurable disease, 25 ought not to be considered a serious record for our table of mortality ; on the contrary we ought to be well satisfied with what has happened.

During the year the Zymotic diseases were few and mild and were introduced from the town. They were isolated and did not spread.

I use the term Union Houses by preference, because "Workhouse," though technically correct, seems to me to have lost its claim to that honourable title, since none but vagrants have ever to do more labor than what is sufficient to promote health and occupy a portion of that time which must always be very long and very wearisome to those who have no thought for the morrow and nothing to do.

The average number of inmates in the Union House during 1896 was about 130 of which 48 were children. Of the adults none were ablebodied, several were always in the Hospital, or in the Infirmary wards, which are rooms for the totally disabled and sufferers from chronic disease of the less painful character.

The Hospital in the Garden has 32 beds with ample space for each, and more are about to be added. Moreover these rooms are not now what they used to be—bound by cold brick walls of the uninviting kind—aggravators of pain, but, by the liberality and thoughtfulness of friends, our walls are plentifully hung with pictures of an enlivening character which revivify the joys of bygone days and kindle the anticipation of happiness to come. And then the tables are adorned by loving hands with some of Nature's sweetest and prettiest productions—and in this way sympathy is manifested and suffering consoled.

The infirmary is a part of the house, but separated from the living rooms of the establishment, and here there are 42 beds for obstetric cases and such of the aged infirm as require extra warmth and attention.

The Children are all very healthy and very happy, as appear to be every one on the establishment—Master and Matron, Teachers, Nurses and the boy at the gate. Not the smallest contributors to the health and joyousness of all the inmates being Marshall's men who in their extreme liberality never forget to help the helpless, sooth the afflicted, and feast and entertain the oldest and youngest of the poorest of the poor.

Fatal Diseases.

A glance at the accompanying Table of Registered Births and Deaths will, at once, convey to the mind a sort of Photographic impress of what passed under our observation in 1896, with reference to diseases and accidents in their fatal form: and enable us, perhaps, to perceive to what extent sickness prevailed in our midst and how far our Sanitary knowledge helped us to discover the source whence it came, as well as the means whereby we might antagonise the remorseless opposers of our science and skill.

As in 1895 so in 1896 there was a considerable amount of sickness of a protracted and dangerous kind, but the curative measures adopted were successful, the Doctors won the combat and death had to retreat minus the prizes of a cruelly-planned raid.

Despite the oft doubtful prognosis our people recovered in a remarkable manner and established for our town a *record year*, for our deathrate was only 12.07 per thousand living—or 1.18 less than 1895, then the lowest ever reported by me.

The table of our Registered Births and Deaths herewith presented will show that there were 491 births and 262 deaths which make a natural increase of 229. And of the 262 deaths:—

80 were under..... 1 year.

29 were 1 and under 5 years.

5	„	5	„	15	„
---	---	---	---	----	---

13	„	15	„	25	„
----	---	----	---	----	---

53	„	25	„	60	„
----	---	----	---	----	---

82	„	60	and upwards.		
----	---	----	--------------	--	--

And these are classified as follows :

Zymotic Diseases, of the first seven of which there were 9 cases, viz :

One of Measles, one of Diphtheria, two of Croup, three of Whooping Cough, and two of Enteric Fever; and of the nine cases, 8 were under 5 years of age.

Influenza, that very demonstrative invader of all the nerves and of their Governor General's capital, the Brain, after a brief feigned retreat, returned re-invigorated and slaughtered 9 unarmed members of our community, 3 of whom were under 5 years. Last year there were 15 fatal cases and the period of invasion extended from the beginning of March to September and during the month of December; this year it remained with us nearly the whole time—March, June, July, and September being the only intervals of its presence in a fatal form.

Like the other pestilential diseases Influenza is indebted to Microbes for its existence, and probably will not leave us until it is starved out. But how to get at what you can't see even with the X rays is a problem for some future generation to solve.

"Big fleas have little fleas
Upon their backs to bite 'em,
And little fleas have lesser fleas
And so *ad infinitum*"

Diarrhoea was less common than usual and there were only nine deaths from it, all under 5 years old. This was a considerable reduction of the number for 1895 when there were 29 deaths, two of them being above the line which indicates the red 5 figure.

Of our nine cases seven died in July; in 1895 September was the most fatal month.

Of Acute Rheumatism we had two deaths, the same as the preceding year, but in different months, for that unruly disease behaves to the calendar with the most insolent disrespect !

Its companion, the Gout, was politely considerate and didn't kill one of our friends in 1896, and only one the year before. Perhaps it wasted its fragrance on the Turkish soil and—was assassinated!

Of Phthisis we had 13 deaths, 4 less than in 1895, which is a move in the right direction, but still not far enough on that inviting path.

And of the other Lung Diseases my report speaks under the inspiring influence of back-patting hopeful promise, for we had in 1896 thirty-six fatal cases only, whereas in 1895 there were just ten more. And of the 36 there were 17 under 5 years; whilst in the year before there were no less than 23 of the same susceptible ages.

Heart Disease was responsible for 16 deaths, an increase of two in 1895.

This though unfortunate is not unnatural seeing what a lot of extra work the heart had to do during the year just past.

When the Turks return to their Otto of Roses and wholesale murder is but a name; when peace is universal, and other Diamond Jubilees are celebrated at one and the same time by all the world; when the heart ceases to perform what nature never intended it to do and keeps its incessant action within legitimate bounds, then and not till then, I fancy, our cardiac abnormalities will be a thing more read about than recognised by all who aspire to physiological or Esculapian fame.

Other Diseases.

The last column of my table is a miscellaneous one and comprehends all sorts of diseases and injuries of an individual or personal kind, and although they may embrace many of the features which undermine the citadel of health, they do not usually fall within the jurisdiction of the Public Authorities.

There are in this column 145 cases enumerated, or more than half the total number of deaths for the year; and of these 61 were under 5 years of age.

In 1895 the total of this column was 143, just two less, but the red letters under five years marked a difference of 14 in favor of 1896.

In 1895 the total was 143 of which 75 were under 5 years.

„ 1896 „ 145 „ 61 „ „

This is certainly very encouraging, since it doubly underlines the health-improving advancement of our old Town.

Inquests.

In 1893 there were 13 inquests in our town.

In 1894 „ 9 „ „

In 1895 „ 14 „ „

In 1896 „ 22 „ „

1896 No.	Date.	Sex.	Age.	Verdict.
1	Jan.	...	F. 36	Rupture of the bladder after confinement on 20th Jan. 1896.
2	Feb.	...	F. 70	Apnœa.
3	Feb.	M. . .	11 m.	Convulsions.
4	April	M. ...	42	Found dead in the river Trent.
5	April	M. ...	81	Apoplexy.
6	May	M. ...	25 (about)	Found drowned in the River Trent.
7	May	M. ...	63	Accidentally falling from a ladder on the 19th May, 1896.
8	May	... F.	60	Degeneration of the Arteries and failure of the heart's action caused by shock from a fall.
9	June	... F.	37	Accidentally suffocated by drowning in a bath.
10	June	M. ...	41	Heart Disease.
11	July	... F.	2	Injuries received accidentally from falling out of a mail cart on the 14th of July, 1896.
12	Aug.	... F.	56	Collapse from Opium taking.
13	Aug.	M. ...	40	Failure of heart's action caused by Tumor.
14	Sept.	M. ...	23	Shock caused by injuries received by falling off his cart and being run over on the 4th Sept., 1896.

15.	Sept.	...	F.	39	Accidentally burnt by the upsetting of a lamp on the 17th September, 1896.
16.	Nov.	M.	...	$2\frac{2}{3}$	Shock caused by being accidentally burnt on the 14th Nov., 1896.
17.	Dec.	M.	...	19	Heart disease.
18.	Dec.	...	F.	68	Natural causes.
19.	Dec.	M.	...	30	Paralysis caused by injuries received from a fall from a scaffold on the 8th December, 1896.
20.	Dec.	M.	...	68	Syncope.
21.	Dec.	...	F.	75	Natural causes.
22.	Dec.	M.	...	14 m.	Convulsions.

13 9 = 22. March and October escaped the "Coroner's quest," but December with its 6 filled in the vacancy.

Nursing.

Relief to the sufferer, in whatever way administered, comes like a sunbeam after a thunderstorm, and brightens all around. The darkened eye, the clouded wit, the sunken feature, the parched tongue, the burning skin, the shivering frame, the rebellious pulse, the frantic nerve and the prostrate form all show their gratitude for rest and the tutored aid afforded. For the darkened eye once more becomes bright, the clouded wit flashes forth its ray, the sunken feature swells to its former rotund self, the parched tongue resumes its elastic condition, the burning skin becomes cool and moist, the shivering frame bespeaks its returning glow, the rebellious pulse no longer mocks in miniature the tempest's wave or the intermittent ripple of the Squire's pond, the frantic nerve regains its unfettered activity and repose, and the prostrate form, from its lifeless incapacity and clay-like mould, rises, God-like erect, in all the full majesty of its proud estate!

But to whom is the sufferer indebted for the wonderful restoration? Not to the physician alone, nor yet to the surgeon with all his armature of polished knives, and probes, not to the physicist, the philosopher or the chemist with all the elements at his finger's end; not to the microscopist, the demonstrator of microbes, of the innocent or the injurious kind; nor yet to the pharmaceutical dispenser of vapours

and drugs ; not to these, singly or combined, as they might be, under one convexity of flesh and bone, but to this one or those helped by the assuring presence of—the Nurse.

That sister-nurse, I mean, who seems to come straightway from some tutorial mansion above to aid the aiders of the afflicted below. The sister-nurses, instructed and skilled, whose soothing words, sweet, persuasive smiles and gentle angelic touch help forward with express speed, the return of the timid sufferer to his wonted felicity and health.

Praise to whom due. To the projectors of our Nurses' Home we are all deeply indebted, for they conferred on the inhabitants of our town an incalculable benefit, and it requires no stretch of imagination to believe that thousands yet unborn will pile their blessings on the philanthropists who preceded them in this great good cause.

But an unfurnished house is a cheerless place : it is the animated and unanimated furniture which, harmoniously blended, constitute the happy home ; and great credit is due to those ladies and gentlemen who have had the selecting of the “sisters” we are proud to claim as our helpers in the seasons of saddest need.

To Flora and Edith ; Campling and Healey I and the whole medical fraternity of Gainsborough have given and still give our warmest thanks for the assistance they have so willingly rendered us in our efforts to save life, even when the danger flag, with its cross bones and skull, was ominously waving before their eyes.

Moreover, considering the number of lives that are probably saved by these Ladies' help :—how near to the zero degree the index of our mortality is made to descend, our Nurses' Home might, I think, be safely tacked on, as a life saving department, to the Board of Health.

What bothered the Ancient Philosophers' brains is A B C to them—Ubiquity and perpetual motion.

Overpressure.

“Short time” gives idle people something to talk about and encourages them in the thought that they are about to have less work and more pay no matter who may find and whence comes the “Siller.” But short time, rationally interpreted, means a shorter number of hours of honest, earnest labor, whereby the industrious toiler ought to be able to earn a “living wage” and provide his employer with a reasonable profit on his invested capital and his intellectual pre-eminence, and then, like an honest man, the employée should enjoy with his superfluous earnings such relaxation as suits his taste and capacity. Very limited hours and idleness upsets the order of Nature and leads to disappointments and degrading pursuits—never to the ennobling pleasures of life. But overpressure is generally applied to the working of the brain in the infantile or developmental season and emphatically to those children of tender organization and scanty means who are expected to do on insufficient nourishment what the strong and well nourished find a difficulty in accomplishing; for in these days of competitive examinations and payment by results little heed is taken of childrens’ failings and susceptibilities.

Hence, as I have remarked before, headache, dyspepsia, weariness and shortsightedness are becoming a perceptibly increasing quantity among the juveniles of our day, especially among the ill-fed and physically feeble, and I fear these evils will be perpetuated unless, taking time by the foreclock, we acquire and apply a better knowledge of Nature’s several demands, and help in the full development of all.

For children’s bodies and limbs, like the green twigs, are easily made to assume unnatural forms, and the absence of fresh air and nourishment favour the uncomely descent. Nor is the physical distortion the only crying fault, for the susceptible and debilitated brain pleads its hysterical sympathy and rests and weeps instead of moving on.

The remedy should be: healthy homes, wholesome dietary, sunlight and exercise in the open air, moderate scholastic discipline, short lessons, small books and large print. And let the shortsighted be trained to eye the larger objects in the beautiful green fields and the picturesque scenes around.

And now, as “our old town” is expanding its boundaries with electric rapidity and giving to its new streets a nomenclature worthy of

its intelligent inhabitants, our school children, in the summer months, instead of spoiling their eyes and brains with much forced packing, should be sometimes trotted out and given not only practical instruction in local topography, but interesting lectures about the sayings and doings of the great men and women whose names they will recognise at every turn.

The Market Place, of course, would be suggestive of commerce and the rule of three—the producer, the seller and the consumer; the clock from its conspicuous elevation would remind them of public spirited men and the great value of time; whilst the removal of the Russian cannon to its presents site would serve as a text for a moral on the misery and ruin provoked by wasteful habits and insensate war.

Around the Old Hall, with its ancient memories of light and shade, our pupils could be shown a constellation of names of the living and recently dead who left their footprints to be followed or avoided as the arrows of the good and wise may now and hereafter faithfully indicate. And then, from the centre to the periphery, the multitudes of little feet might travel through our old and new streets to the fields and lanes beyond, their tiny minds being expanded by observation and comment as they travelled along, their bodily powers, imperceptibly but enjoyably, gaining augmented strength to fit them for the better performance of their indoor work.

Gymnastics should be practised by all who desire to be members of a healthy and heroic race.

Inspector of Nuisances' Report.

Mr. Penny, Inspector of Nuisances, during the year 1896 issued 76 notices for the abatement of Nuisances:—

- 26 for defective cesspools;
- 14 for the removal of swine;
- 9 for deep and defective ash pits;
- 3 for privy accommodation;

2 for removal of manure ;
 1 for smoky chimney ;
 2 for slaughter houses ;
 4 for defective drainage ;
 15 for various other things ;

the whole of which have been attended to.

Besides 13 Bakehouses were visited ; some of them were very clean and well situated ; the others required attention. Orders were given accordingly.

Mr. Cuckson's Report.

"I submit for the Council's approval the applications for the renewal of petroleum licenses for the same persons who have had them during the past year. I have at various times during the year inspected the premises where the petroleum is stored and found them kept satisfactorily and in accordance with the Act. I have also at different times inspected the common lodging houses and found them kept clean, and the limewashing of the rooms done at the proper times, as stated in the Common Lodging Houses Act. No person suffering from infectious disease has been reported during the year."

Personal.

During the year I examined many houses and closed 17 which were unfit for human habitation, though capable of improvement : some others might have been added to the prohibited list, but for the fact that they were about to close themselves.

Though we had a small death rate, we, like other towns, had much enfeebling sickness, such as Influenza, Typhoid and continued Fever, Measles, Whooping Cough, and Scarlatina, and the disinfection of some houses was rendered imperative. But by constant watchfulness we had nothing of an infectious character that was not kept within reasonable bounds.

About some of the cases of fever I sent you special reports as to the probable cause thereof; but these I need not now repeat since the errors were corrected at the time.

I received several letters from Medical Officers of Health, notably Dr. Littlejohn of Sheffield and Dr. Mason of Hull, respecting people who had suffered from or been much exposed to infectious disease and who had come to share with us the invigorating air of good old Gainsborough.

These immigrants I visited, advised and watched, and am happy to say I never heard of any extension of disease from their persons.

C. M. from Hull, interviewed, April 17th, 1896, aged 21 years; vaccinated in infancy,

ON BOARD S.S. TOKIO.

With a crew of 24 and about the same number of passengers I sailed from Bombay some five or six weeks ago, with a clean bill of health. After being eleven days at sea, on our way to Port Said, via Barcelona, one of the firemen sickened from smallpox, and, luckily, a passenger Doctor was on board. The said fireman and others had been previously cautioned not to go on shore when at Carrot-sea where the smallpox was bad, but *he* went there and ultimately was left at the Infectious Diseases Hospital at Malta. About seven days afterwards, the second man, also a fireman, was seized with the smallpox and was left at Gibraltar. Then after a twelve days sail the ship arrived at Hull—on April 20—when it was disinfected, and all the beds were burnt.

C. M. could not tell me anything about the others on the ship in reference to Vaccination.

These letters teach us two thiugs incidental to modern life, for both represent an amalgamation of evil and good, the bane and the antidote intimately blended. The facilities now offered for the rapid intercommunion of peoples, even as the poles asunder, are certainly a good to civilization; but the quick conveyance of bad habits and pestiferous disease is surely an evil to all. The Tokio

transported rapidly its passengers from a far-off land, each and all on business or pleasure bent, but, through the foolhardiness of one of the subordinate officials: it also brought from a focus of contagion the horrible small-pox !

Further, inspired by the courage which science affords, these letters show that our sanitarians are increasing their armamenta for defence and signal by anticipation the coming event. For, by applying the Notification Acts, I was forewarned of the danger then near at hand—and took heed.

Bad Meat.

In May and November some meat was examined by my Deputy, Dr. Farrar, and one of the owners was fined. *Caveat Emptor!*

The Isolation Hospital.

Once more our Hospital on the hill has, for a whole year remained unoccupied by the afflicted for whom it was built, though fully equipped for any emergency. For the reserve forces were at command, the beds were aired, the stoves and tubes all tested, the utensils in the kitchen ready for immediate use and the whole staff of officials were within easy call; but the bell never rang and the dog never barked and there was nothing for anyone to do, save to stop the spiders from killing the flies and keeping the rust away.

Yet wanted those beds were nevertheless, for a few of the bad cases in the town ought to have been sent there for their own and the public good. For Isolated they ought to have been, but could not be in their own little houses, and the tariff of the Hospital was prohibitive.

But our population is growing apace and our wants and responsibilities are proportionally large, and I trust it will soon be deemed expedient to admit to our Isolation Hospital, without pecuniary consideration, all proper cases for treatment.

And then the Notification Act, which has now been adopted by more than 93 per cent of the towns in England and Wales, can be effectively carried out.

The folded umbrella smiles at the threatening clouds.

Precautions against Zymotic Diseases.

The poor we have always with us, Zymotic diseases are not often far away, so I venture, once more, to repeat my brief cautionary notes for all whom they may concern.

PERSONAL.

- 1 Cleanliness of person, house and surroundings. Baths.
- 2 Diet, wholesome, sufficient, but not superabundant.
- 3 Fresh air, out-door, in-door, in unstinted quantity.
- 4 Water, well boiled before it is drunk, so long as there is any river or other impure admixture.
- 5 Warmth, high and low temperature alike to be avoided.
- 6 Sleep, in sufficient quantity according to nature's demands.
- 7 Diarrhœa ; of all the premonitory signs of serious mischief this is one of the most emphatic and should never be neglected. Putting off is death inviting and extremely censurable.

GENERAL.

- 8 Privies and Ashpits should be frequently emptied and always disinfected before the removal of the debris, for though the night is the appointed time for the Scavenger's work, darkness does not destroy the Mephitic air, and sleepers less than the wakeful possess the power of resistance to such unwholesome companionship.

Moreover, many people, especially in hot weather, keep their bedroom windows open, regardless of what may prove to be worse than a problematical good. Locomotion befriends the day.

- 9 Limewash should be in universal use.
- 10 Pigsties, cowsheds and slaughterhouses should be unremittingly supervised and all accumulations of refuse, however produced, should be quickly destroyed by incineration or otherwise.
- 11 Sewers should be frequently and thoroughly flushed; and every leakage should be hermetically sealed; cesspools should be cleaned out or removed and gully-siphons should become the substitutes.
- 12 Disinfectants should be liberally distributed.
- 13 The Isolation Hospital should always be ready for the reception of sufferers from infectious diseases.

The letters about the Tokio in the evidence obtained by myself from one who was present plainly show the advantages of Isolation, for while at sea the passengers were safe, but through the obstinacy of a disobedient man, who landed at and re-embarked from a place where the small pox was prevalent, the lives of all on board were jeopardized.

The Water.

Upon the whole the water supply this year has been good; but until the duplicate well is finished we must expect brief intervals during which we shall have to get it from the Trent, experience having shown us that machinery will come to grief sometimes. But when the water does come from the River, we are told of the fact, and ought to act accordingly—and boil it.

Still there are people who will not adopt even this simple expedient, but drink what may not be good for them and expect their stomachs to do more than a chemist's work.

Others imagine that what is not seen by the naked eye is not there, our Microscope's teaching notwithstanding. These are the people whose imagination was cramped in early life and who can't see what others see with more satisfactory development; but they recognise the pinches which the colonies of tinies give them sometimes after imbibing water of the bad-soup kind—the water that some oysters like—some worms as well!

Last year, as I then informed you, an anonymous correspondent wrote that "on his return to a tap which he had left running he found coming with the water a large worm which he afterwards transferred to his garden when it wriggled its way to "another place." Of course, as I then observed that was an exceptional worm,—a sharp-witted, aristocratic, enterprising, heroic worm, with a love of adventure in its composition, and strongly marked too, because it left its mother when very young, floated up the pipe from the river to the waterworks, crept through the sand undetected, got into the circulating stream, visited most, if not all of our underground town, heard talking above it—love secrets, perhaps,—selected its food with rare sagacity, and finally, when it had explored every nook and corner, and before it became too corpulent, it made its way to an unguarded tap with the intention of climbing and examining the sweeter regions higher up.

Now, if our "half and half"—river and sewer water mixed,—can aid in the development of such adventurous spirits as this worm was, can we wonder at some people, especially fond mothers, just liking a wee drop of impurity in what they drink?

Similar stories to the above have not been infrequent this year; but some of them emphasised the progress our good folks are making in works of high imagination. What the Diamond Jubilee will do for us I dare not guess; but if the pump breaks again perhaps we shall hear of a new creation in the shape of a Shakespeare—Nansen united!

Mr. Riley.

Mr. Riley has kindly sent me a brief Report for 1896, which I am sure, will be read with interest, inasmuch as it furnishes some facts about our water-supply and other matters over which he has direct control.

Though Mr. Riley's Report refers to houses, streets, yards, and refuse removal or disposal, as well as water, I think it should follow this page, since all his notes have a bearing on the subject under immediate discussion,—viz:—

Water.

Surveyor's Office,

Gainsborough,

29th March, 1897.

To D. Mackinder, Esq., M.D.

Dear Sir,

I beg to hand you the following information for the purpose of your Annual Report.

NEW HOUSES.

The number of new houses built during 1896 amounts to 132.

TRENT WATER.

From various causes the town has been supplied with Trent Water on 9 different occasions, the total number of days being 37, including 18 continuous days when the new cylinder to the Water-works Well Pump Engine was fixed.

BOREHOLE NO. 2.

On the 31st December last the new (No. 2) Borehole had reached a depth of 639 feet—389 feet having been executed during the year.

Although we did not suffer from any actual lack of water, yet the most rigid economy had to be exercised during the summer of 1896 to meet the continually increasing demand upon our water supply.

The water for street watering was obtained by hand pumps as far as possible from the river.

THE DISPOSAL OF HOUSE REFUSE.

The Committee directed that some 60 or 70 of the new dry (Goux) closets should be introduced as an experiment.

This has been done chiefly in connection with *new* houses in Melrose Road and district, and it appears to give satisfaction. I should however like to see the new dry closet displacing the middens.

and privies in the *old and confined* yards and courts of the Town, especially would I rejoice to see the complete removal of all privies discharging either into vaults or direct into the River.

YARDS AND COURTS.

I wish something could be done to put the surface of many of our yards and courts into something like decent repair, doing away with the stagnant pools of dirty water in which the poor youngsters of the place dabble and play.

Many of the new streets in the new part of the Town too, to wit, Beaufort Street and Salisbury Street might be completed to the great comfort of the occupiers of houses there.

Yours faithfully,

HENRY RILEY.

M. O. H. Gainsborough Urban District Council.

Baths.

The want of baths at the North end of our town is perceptibly increasing and the summer of 1897, with all its festivities, benevolence and joyous excitement, will surely underline the general wish for an invigorating swim.

The existing Baths answer a very useful purpose and have been, no doubt, the means of contributing health and happiness to many people; but our town has outgrown the accommodation there provided and the new comers make it imperative that their health and comfort should also be considered, the welfare of the inhabitants of the North being of not less importance than that of those who occupy the Southern district.

The new Baths should, of course be an improvement on the old ones and in keeping with advancing requirements, for every one is moving on the upward line, safely, we hope, but upward.

They should possess all the advantages the modern Architect can design, with moderate means only at command. But hot baths, dressing rooms and really spacious swimming baths should be deemed a *sine qua non*, the link, the covered terrace, the bay for the band and a refreshment room being provided for in the space and erected if and when the means and the approval of those most interested sanctioned the completion of the work so well begun.

It has been said that distance lends enchantment to the scene, but I fear the length of our large town negatives the enchantment at the opposite end to all those honest prosy workers to whom time and muscle have to undergo scrutiny as well as washing and the daily meals.

Jubilee Dives where are your hands?

Streets.

Our streets are the wonder of our age for they run up so quickly, and, like boys, some of them improve as they grow. Generally speaking they are aesthetically and symbolically planned, the Surveyor and Architect knowing that a straight line is indicative of rectitude and a curved one is the mark of beauty—a later thought.

“Her ‘prentice han’ she tried on man

And then she made the lasses, O.”

So that with rectitude and beauty combined we shall soon have what the grandest cities of Ancient and Modern times tried and still try to excell in.

Many of our broad streets which allow full expansion to the joyful lung are uniform and continuous, whilst others form a sort of chain of semi-detached parallelograms which not only increase the breathing space, but give effect to design. Light and shade have been well cared for by individual fancies, the bashful houses receding from the line and the bolder ones advancing, as if to scrutinise new comers. The latter get the most dust, the former the most darkness.

Still we are advancing, and when our destructive and constructive education is finished, trip-trains to New Gainsborough may be expected to lift up the Railway funds.

Perfection, however, is not the work of a day and we must be content to keep moving slowly forward, planning good broad

streets with well arranged houses for those with the higher skill and wage, and suitable ones for the less favored of the poor. And these comfortable little dwellings I notice, with much pleasure, are rising apace.

The builders, I perceive, have not disregarded my former suggestions as to some of their shortcomings, and I trust they will pardon me now if, with a touch of varnish, I just refreshen their memories and ask them not to forget to carry their ventilators a little higher and out of reach of windows and chimney tops; not to neglect the proper disconnection of the outside and inside drains, but always to appeal to the Surveyor when in doubt as to the better of two plans; always to remember the use of fireplaces in bedrooms; and not to begrudge an inch or two more of wood in the width of the stairs and the fixing of a handrail of wood or iron or rope. Nor yet be oblivious of what I wrote about the patented constructions for lofty windows which might be cleaned from the inside, since the saving of life is the matter in issue and philanthropy the index finger. Some people send their smoke into their neighbours' bedrooms—for daily salutation! Fie!

Naming and Numbering of Streets and Houses.

The naming of our streets, though inappropriate sometimes as to site, endorses a common opinion that we are moving on, in trams it may be soon but on safety wheels now, still always moving and thinking as we go; for the names we elect are the suggestive names of men and women who did good service in the world before they entered the Occident of their time, and left their footprints for us to compare with the queer looking impressions of our own.

In my last Report I commented on Queen Street, Victoria Street and some others, and advised the removal of those honored names to some more worthy place, non-existent, but, perhaps, about to be erected, when, contiguous thereto, Empire Crescent might happily arrest the admiring observer's eye, with Britannia cresting the central edifice and a beautiful bed of roses scenting the air around. The Lion, of course, would be there, quietly reposing and symbolising brave John Bull meditating—after his dinner.

With your permission I should like to make a few other changes in the names of streets, viz:—Salisbury Street, Beaufort Street, Myrtle Villas, Albany Grove, Hotspur Street, and Melrose Road. These might be translated into Canale di San-Marco, Canale Orfanella, Canale della Guidecca, Capale delle Fondamente,

Canale de Murano and Canal Grande, Gladstone House becoming the Doge's Palace and the submerged fields the Adriatic.

Now, but for the inconvenient absence of the gondolas and the less classical environment, a stranger might have imagined himself, during many past weeks, at Venice—*in the dark!*

Coughs, diarrhoea, influenza
And Rheumatism prevailed.
Bad tempers were endemic!

Numbering of Houses. This important matter is still in progress, but oversights, or deviations from the established rule, are not uncommon, much to the annoyance of many to whom time is important.

Inspectors, Collectors, Sanitary Officers, Shopkeepers, Postmen, Nurses and Doctors have equally to suffer from an easily avoidable cause. Some houses are not numbered, though forming parts of a sequence in streets, depending on titles given before the numbering began when the town was small and everybody knew everybody else, and what they did—and thought; but now we are a large population of emigrants and immigrants, oft changing our locality, and nothing but a number and *the right one too* can easily find out the wanted woman or man.

The fancy names of houses are easily forgotten.

I repeat—the Rule.

Given the New Town Hall in the Market Place its legitimate claim as Number One, the centre of the circle, we must then radiate to the periphery or outer ring and all the branches from such radii must be numbered, like the radii themselves, and have the odd numbers on the left and the even on the right as we move outwards from the central point. Hence, to facilitate proceedings I will here state the direction in which our arrow would fly.

1 The Market Place, Silver Street, Bridge Street, Lea Road should be the first main line.

2 Beaumont Street, Trinity Street and the Ashcroft Road, should be the second, or leading parallel south.

- 3 Church Street and Morton Terrace should be the third main line, or main line north, and
- 4 The Crowgarth, Albany Grove and the Cemetery to Morton should be considered the west parallel, and
- 5 North Street the East parallel of Church Street.
- 6 Lord Street, Market Street and Spring Gardens which lead from the Trent to the M. S. & L Railway and cuts the North and South parallels at right angles and divides the town into two parts, should, I think, be regarded an exception, and take its numbering from the Trent.
- 7 All the cross streets leading from these main streets or roads should begin their numbering at the point nearest to the Town Hall on the most direct main line, and this instruction should always be followed. It is not so now, for some of the streets are ambidextrous and reverse the order of the next, though leading from the same uninjured spine. Linden Terrace, Clinton Terrace, Stanley Street, Jerrems Street, Salisbury Street, Long Row and the elbow of Arkwright Street—to wit, if not altered since I last took note.

Abattoir.

For more than 40 years Sir George Buchanan M.D. F.R.S. a late head of the Medical Department of the Local Government Board studied the subject of Epidemic Disease in all its varied aspects, and gave special attention to the diseases of animals, the way in which they were killed and how the meat was distributed for our use for food ; and he came to the conclusion that slaughter-houses should be abolished and abattoirs be provided where inspection by proper persons could be made in something more than the perfunctory manner often adopted.

These remarks I endorse. And recent experience convinces me that abattoirs are really necessary if we are to exercise efficient control over the killers of meat for human consumption ; for though there are many men who would not need supervising, there are others who could not be trusted, and the private slaughter-house tempts the dishonest to commit the offence for which, as you know, more than one person has been prosecuted by us.

Moreover the private slaughterhouses, even if clean and well conducted, are often very objectionable, if not injurious to other people in the same locality.

Abattoirs are not only Isolated buildings but they are clean, spacious and well ventilated, and official examinations are made more easy and much more satisfactory.

The Cemeteries.

The Gainsborough Burial Board, as recorded in an excellent report by its Chairnian, Mr. Thompson, was elected in May, 1873, and dissolved in December, 1894, soon after attaining its majority, by edict of the legislature.

Its existence was short, but the work it did was useful, honorable and long-lasting. The old churchyard had been pronounced overcrowded, and of course, insanitary, and a new area for the entombment of our dead was imperatively demanded. After sundry suggestions and nerve-calmings about geological strata and living surroundings, the present site on Cox's Hill was purchased and artistically laid out; but no one then imagined that the few acres of sward before him could ever be so transformed as to elicit from a Bishop of Lincoln the complimentary exclamation, "that our Cox's Hill was the most beautiful cemetery in his diocese!" And as such this has provided not only a resting place for our hopeful departed, but a pleasure ground for those who desire to meditate on the deeds of the deceased amid flowers and the other soothing monitors which nature has so graciously formed for our enjoyment.

In the report referred to, Mr. Thompson remarked that Dr. Hoffman, Inspector of Burial Boards, expressed his unqualified approval and said, "That though he had visited many cemeteries he had not seen one so well kept as this of ours." and he praised the ground-keeper, Mr. Foster. This is all very encouraging but it enhances our regret that Sir H. B. Bacon's offer of 700 yards more land for planting and ornamentation could not be accepted through a technical difficulty.

At my recent visit I could not help thinking that if the Bishop and Inspector were so pleased when they saw this cemetery in a state of preparation only, their admiration of it now would be great indeed and perhaps require more than one adjective to express the sentiment fully; for, like the lark, we have been gyrating upwards and singing as we soared.

And pondering what our eyes surveyed, who could escape the thought that rich and poor alike here rest in peace, their perishable tenements returning to the primordial elements whence they sprang, whilst their ethereal selves perchance are hovering around, happy in their unfettered existence, and whispering, it may be, to the soothing zephyrs the joy they feel at the beautiful sight ! For in few other ways could their memories be more gratefully perpetuated than by the adornment with Nature's own beautiful works as here manifested in all the fulness of silent eloquence by loving artistic hands.

At the end of 1895 there had been in this cemetery 3,579 interments, and during 1896 there were 241 more, equal 3,838.

In the North Warren Cemetery, which is kept in good condition, there were in 1896 34 interments, which, added to the 199 at the end of 1895, equalled 233 since this cemetery was purchased by the Burial Board in May, 1890 ; leaving 697 grave spaces vacant.

Total interments in 1896 in the two cemeteries--275--13 more than our Registered deaths.

The Trent.

Our Trent water continues to be sewer-polluted and naturally becomes more septic as our population increases and the outlets of our drains remain the same. For though we have a fine tidal stream which eagerly conducts our debris from its constantly depositing scourge, the returning up-waves bring much of it back again as a veneer to our banks and thus poison the air, the water and ourselves a second time. And many of those who go out in small boats and tarry near the river sides when the tide is low must have felt the depressing effects of their unsavoury proximity to unhealthy ground. I have heard of such. From a distance the River is inviting, but, like the snow, beneath its seeming purity is sometimes concealed the microbial provokers of disease and death.

The antidote for this bane is the diversion of the sewage and its deodorisation and disinfection before being laid on the land where it ought to be profitably distributed. But this must be the work of a future day.

Herewith I enclose the excellent report of our Surveyor and Architect, Mr. Riley, in which you will read his notes on the conveyance and destruction of debris in its several forms--what has been done, is being done, and what should be done. Mr. Riley agrees with me that that the water-carriage of faecal material is the best, but to do it now without contaminating the Trent is beyond our power, save at a ruinous immediate outlay.

He therefore thinks, and I agree with him, that it is expedient to adopt the Goux system *in its integrity*, that being, in our opinion, the best for our purpose. For it would not only assist in the purification of the river water by reducing the aggregate of the sewer deposit, but it would do away with many of the abominable stinks which so constantly assault our noses whenever we go on our exploring rounds; and it could, I am told, be worked at a small expense, the sale of the useful product being one likely to be encouraged. It must, however, be Goux's system, and not a go-between a good thing and a bad one.

I have been with Mr. Riley and have examined some of the boxes and their accompaniments and consider them a vast improvement on the old privies and tubs, however well attended to. Moreover the health of our people would be safe-guarded by the adoption of Goux, and the Trent made more inviting to the salmon and our other finny friends.

Such was the purport of my last Annual Report and I now have the pleasure of endorsing all I then wrote, and of expressing my gratitude to Mr. Riley for introducing the change, and to you, Gentlemen, for allowing him to carry it out.

The Small Pox.

At the end of 1896 there were about 1850 unvaccinated children in Gainsborough, a fact worth remembering by those who are interested in the welfare of the human race.

To me, whose vocation has been the prevention as well as the curing of disease, this information concerning our pretty little ones has been provocative of much pain and disquietude; because I foresaw

and foresee the terrible consequences of this disregard of the teaching of our great Country man, *Fenner*, whom all the world now honours as the Discoverer of *the greatest prophylactic yet known*!

And I trust that those who from an imperfect knowledge of all the factors involved, and an insufficient appreciation of the benefits to be conferred by the operation, will have the courage to acknowledge that hitherto they have been travelling the wrong way, but now that they have found the right one they will push along vigorously with the joyful multitude and proclaim to all peoples the name of our hero, *Fenner*, and his invaluable Boon—

Vaccination.

Vide Supplement to last report for Address to the Mothers—on this subject.

The Border Land of Public and Private Practice.

Infectious and Contagious and Epidemic.

Truly the functions of the M.O.H. are numerous and great for he is expected to know something about every thing and every thing about something and nothing should escape his attention which is likely to exercise a prejudicial influence over health. Hence you must pardon me if, for a few minutes, I occupy your time by diverting your thoughts from the direct to the indirect promoters of epidemic disease.

Given, that the stronger overpowers the weaker force, it follows that a person whose vital power is that of health is better able to resist toxic impressions than the one whose energy has been enfeebled by any or many causes, and, therefore, an exposure to any antagonism in the form of disease must operate differently with people according to the amount of individual protection.

Strength v. Debility.

We ought all to be strong, folly and fashion absenting themselves, for folly and fashion are cruelty in disguise often and often again repeated; and I know of no greater folly than that which tolerates the fashion of high heels and narrow pointed toes, so generally worn at the present time. For it is evident to all who know anything about the anatomical structure of the human foot, that the heels never wanted stilts, nor the toes restraining against lateral expansion. The beautiful muscles of the leg lift up and pull down the foot in faithful obedience to their owner's will; but high heels forbid the muscles to perform their duty and distortion and weakness follow.

Then the toes. The handsome Corinthian pillar with its ornate capital requires a base and plinth relatively proportioned to the size and weight of the structure superimposed, and any deviation therefrom would destroy the use and artistic effect of the whole, besides insulting the Architect's cultured eyes.

And thus with the human form: the elegance of our extremities are beyond compare, for they were modelled by an Authority superior to man, and they were made for use as well as ornament and however we may shape our ends we cannot equal the work of the Divinity who made us. Fashion tries to do so, or a little more, and pays the penalty for the venture.

For want of befitting employment the *Calves* play truant and are not there when wanted, and the unfortunate *Ankles* have lost their exquisite rotundity and strength, which has been replaced by weakness and change of form. *The arch of the foot* that was, is not, for the uplifted heel dislodged its support; and the poor *Toes*, in childhood so pretty and free, now, for want of more playroom, or to avoid a prosecution for overcrowding have crept under each other so that they cannot be seen or felt—save by a too fond lover who in a fit of abstraction makes a lasting impression there, and bunions and corns join in a dirge on self-inflicted woe.

To preserve the centre of gravity which the stilted heels disturb, the spine assumes a less graceful bend, and the head and pelvis and all the organs the body contains have, grumblingly, to neglect their duty and probably, threaten to strike for shorter hours and better treatment.

If such a train of evils follows the wearing of the modern boots—and the cases are too numerous to doubt it—can we wonder that so much weakness prevails and susceptibility performs the disease propagators' part on our Melo-dramatic boards.

It was written—"The sins of the fathers shall be visited on the children to the third and fourth generation." The Mothers were mentioned in the next paragraph; but it was not printed.

Men had long hair in those days and women had hands.

Mr Rileys' full Report for 1896 has probably been received by you.

VALEDICTION.

And now, Gentlemen, after thirty years, during which time my work and responsibility have been many times redoubled, I feel it to be my duty, in obedience to the wish of my family and the edict of Nature, to resign my position as Medical Officer of Health under your Authority; in order that I may share in the relaxation which should be the legitimate reward of every honest and industrious man ere the autumn ushers the frigid winter of his life.

Relaxation from labor has seldom been a privilege of mine, and never beyond the briefest term, so that, like a bashful girl, I seem to dread the introduction, lest the stranger should be of the uncomely race and upset my stomach's fancy or the equilibrium of my brain.

In the early years of my sanitary experience the duties of my office were few, small and unfatiguing; for preventive medicine was then but little known and all the young M. O. H's were like a band of simple tyroes with a formula which Esculapius had never seen.

But the spark then struck kindled a flame and the flame a conflagration. For no sooner was it known that the new speciality had Government support and the encouragement of the intelligent community, than men of high culture gave a large share of their thought to the prevention of disease and the annihilation of pestilence in any and every form—Hercules and the Hydra re-enacting!

And this development of certain physical forces which oppose contagion is still advancing for the benefit of humanity, and the time may not be very distant when the majority of infectious diseases will have been effectually stamped out: and other infirmities incidental to our modern habits and the despotism of fashion, if not placed beyond our knowledge, at all events, will be so attenuated as to be unrecognizable.

Sanitation. Progress reported. Disease has been lessened; Life has been lengthened; Centenarians are less uncommon.

Nevertheless, I am fully conscious of my own shortcomings and wish I could just take a backward leap over the whole of the years in which I have been trying to execute good work; but vain is the desire. The silvered hair forbids. My journey's ticket is for one way only and from that Destiny there is no return!

But enough. To you, Gentlemen, my gratitude is due for the kind and considerate way in which you have always received me, and, though officially dissociated, I hope our friendship will endure until the final hour when the last link of life's long chain will be sundered by the hand of invincible Time.

And through you, Gentlemen, permit me to thank my brother Officers for the services they have so willingly rendered and placed at my command.

Finally, as a last favor, I ask you to transfer my appointment to my Deputy, Dr. Farrar, of whose ability to discharge the duties involved I need not offer any comment.

With best wishes,

I am, Gentlemen,

Yours faithfully,

D. MACKINDER.

The Cedars,

June 2, 1897.

Local Meteorological Observations.

1896	Rainfall	Temperature.		Wind.		Remarks.	
		Min. deg.	Max. deg.	Direction	&c.		
Jan.	1	40	46	S	O	The Rainfall is from the Register of the "Gainsburgh News."
	2	....	45	51	SW	O
	3	0.01	44	48	SW	Ms	
	4	0.01	42	44	SW	O	
	5	....	36	37	SW	O
	6	....	33	34	SW	O
	7	0.02	31	36	S	O	
	8	0.01	35	44	NE		
	9	....	31	38	NE	C
	10	0.10	36	36	NE	C	
	11	....	36	40	NW	O
	12	....	33	41	W	O
	13	0.16	33	43	NW	C	
	14	0.05	35	40	N		
	15	0.02	28	49	W	3	
	16	....	35	48	W	O
	17	....	46	48	W	C
	18	....	37	50	W	F
	19	....	35	47	W	F
	20	....	28	44	SE	F
	21	....	21	31	NE	Fg
	22	....	25	38	NW	Fg
	23	....	26	36	SW	Fg
	24	0.10	33	44	W	C	
	25	0.09	41	48	W	Fg	
	26	....	41	44	N	SE
	27	0.07	42	47	S	O	
	28	....	31	45	S	F
	29	29	46	S	F	1 = gentle
	30	28	46	S	F	2 = brisk
	31	27	45	N	F	3 = half-gale
							4 = gale
							no sign = calm
Total	0.64	20 days no rain.					

O means Overcast. C Cloudy. Rn Rain. F Fine.
 Sh Showers. Ms Mist. Fg Fog. G Gusty. Th Thunder.

Local Meteorology.

1896	Rainfall	Temperature		Wind.		Remarks.
		Min. deg.	Max. deg.	Direction &c.		
Feby 1	...	31	41	NW	O	
2	.....	28	43	N	C	The greatest
3	.....	25	41	S	Fg.	range of temp.
4	.....	33	47	SW	F	25 deg. was on
5	.....	32	50	SW	Fg.	the 27th.
6	.....	34	47	SW	Fg.	
7	.....	31	48	SW	Fg.	
8	0.01	36	55	SW	O	
9	.....	43	55	SW	C	
10	.....	34	51	SW	F	
11	.....	38	54	SW	C	
12	.....	40	51	NW	O	
13	.....	31	41	NE	C	
14	.....	36	47	W	O	
15	.....	36	49	NE	O	
16	.....	35	38	S	O	
17	.....	29	31	SE	O	
18	0.02	27	33	SE	O	
19	0.02	29	52	SE	O	
20	0.18	41	50	SE	O	
21	0.06	41	52	SE	O	
22	....	31	43	SE	C	
23	....	24	44	E	F	
24	...	22	43	SE	F	
25	....	21	34	SE	F	
26	....	18	36	SE	NE	O
27	0.01	20	45	SW	Fg.	26 Min. 18 deg.
28	0.12	35	53	NW	C	Max. 36 deg.
29	0.19	36	38	S	C	
Total	0.61	Twenty one days no rain.				

The force of the wind is measured by the small figures
 1 = gentle. 2 = brisk. 3 = half-gale. 4 = gale. No letter
 or blank = calm.

Local Meteorology.

1896	Rainfall	Temperature		Wind.		Remarks.
		Min. deg.	Max. deg.	Direction &c.		
Mar.	1	....	40	51	W	F
	2	0.05	35	47	NW SW	C
	3	....	40	49	SW	C
	4	0.03	32	45	SW N	C
	5	....	28	56	NW W	F C
	6	0.01	40	54	W	3 C
	7	0.04	35	49	W C	O
	8	....	40	57	W	C
	9	0.03	46	55	W O	Sh
	10	....	26	55	S W	F
	11	0.02	43	59	W E	C
	12	....	36	53	N E	F
	13	0.32	25	50	E S O	
	14	....	32	45	W NW N	O F
	15	0.14	29	47	SW O	Rn
	16	0.10	35	53	SW 2	O
	17	....	34	56	SW	F
	18	....	36	51	NW SE	O
	19	....	23	56	S Fg	F
	20	0.06	35	49	SW	O
	21	0.17	40	58	S O	Rn
	22	....	45	59	W	C
	23	....	32	62	S SW	Fg F
	24	....	31	64	W	C
	25	....	39	66	SW	C
	26	0.07	42	55	SW C	Sh
	27	0.03	33	51	NW 2	F
	28	0.06	32	48	NW rn	F
	29	0.01	34	54	N C	Sh
	30	....	30	53	N 2	C
	31	0.05	23	53	SW F	Sh
		Min 28° Max 53°				
Total	0.99	Fifteen days no rain.				

Local Meteorology.

1896	Rainfall	Temperature		Wind.		Remarks.
		Min. deg.	Max. deg.	Direction &c.		
April	1	42	55	NW NE N Sh	The greatest range of temperature was on the 15th.
	2	....	25	57	N F C
	3	....	30	58	NE C
	4	0.05	30	55	NE NW O Rn	
	5	....	47	62	NW C
	6	....	40	66	NW C
	7	....	36	65	NW O C
	8	....	41	65	NW F
	9	0.03	37	63	NW SW C	
	10	0.10	37	59	W C Sh	
	11	0.05	40	53	NW C 2 Sh	
	12	0.04	30	52	NW C 2 Sh	
	13	0.04	31	45	NW 2 F C	
	14	0.06	34	52	NW O Sh	
	15	0.04	26	62	N SE C	
	16	0.08	38	49	S O Rn	
	17	....	35	60	NW O C
	18	....	32	67	N SE F
	19	....	36	68	NW C
	20	....	43	63	NE O
	21	....	32	67	SW F
	22	0.01	37	68	NE F C	
	23	....	40	63	N C F
	24	....	29	65	W C F
	25	....	36	69	W F C
	26	....	46	63	W C
	27	0.02	44	69	W C 2 Sh	
	28	....	46	61	SW 2 C
	29	0.02	34	57	NW C 2 Sh	
	30	....	32	61	NW NE 2 C
Total	0.54	18 days no rain.				

O means overcast, C cloudy, F fine, Fg fog, Sh shower, Rn rain.
Th thunder.

Force of wind, 1 = slight. 2 = brisk. 3 = half-gale.
4 = gale. blank a calm.

Local Meteorology.

1896	Rainfall	Temperature.		Wind.		Remarks.
		Min. deg.	Max. deg.	Direction	&c.	
May 1	29	60	N	1 C	
2	25	60	NE	C	Min 25° Max 60°
3	29	63	NE	C F	
4	31	70	N	F	
5	34	73	NE	F C	The greatest
6	30	66	E	F	range of temper-
7	37	67	NE	C O	ature, 53 deg
8	44	64	N	O F	was on the 12th
9	45	65	NE	F	
10	40	70	NE	Ms F	
11	36	75	E	F	
12	0.01	36	89	W N E	Th Sh C	Min in shade 36°
13	39	68	NE	SE F g F	Max 89°
14	38	81	NW	F	
15	43	62	NW	NE C	
16	47	70	NE	C	
17	45	79	N	C	
18	54	80	SW	O	
19	0.02	48	71	NW	W C	
20	0.09	42	56	N	3 Sh	
21	0.27	30	68	N	NW 2 C	
22	0.03	45	70	NW	C Sh	
23	50	71	NW	C	
24	39	69	NE	NW N C F	
25	34	73	N	NE F C	
26	34	64	NE	F 1 C	
27	45	65	NE	C	
28	45	69	NE	O	
29	40	80	NE	O 1 C	
30	50	72	NE	C F	
31	41	81	W	F	
Total	0.26	26 days no rain.				

Local Meteorology.

1896	Rainfall	Temperature.		Wind.		Remarks.
		Min. deg.	Max. deg.	Direction	&c	
June	1	....	41	81	W SE	F
	2	0.14	46	84	SE SW	F C
	3	....	52	79	SE	C
	4	1.14	50	78	E C SE th st	Hvy. thu. storm
	5	....	50	77	W	C
	6	0.07	47	75	S C th sh	Thunder shower
	7	0.41	46	71	SE 2 th sh	Hvy thu shower
	8	....	49	76	SE 2 th sh	Thunder shower
	9	....	46	75	NE 1	C
	10	0.07	53	72	N 1 C sh	The greatest
	11	....	52	74	N	O
	12	....	44	83	S	C
	13	....	51	85	S	F
	14	....	50	83	E MS	F
	15	....	52	88	E MS	F
	16	0.01	53	89	S F	sh In shade Min 53
	17	0.07	58	76	S 2	sh deg., Max 89 deg
	18	....	46	78	W	C
	19	....	51	80	W 2	C
	20	0.02	46	76	W 2	C
	21	....	48	74	W 2	C
	22	0.02	39	78	NW 1	C In shade Min
	23	0.20	50	74	SW 1 O	Rn 39° Max. 78°
	24	0.28	48	76	N Th Sh	Thunder shower
				1	SE C	
	25	....	51	72	NE Rn	N F
	26	....	42	76	NE	C
	27	....	47	80	W	C
	28	....	57	78	NW 1	C
	29	0.01	41	76	NW 2	C
	30	0.08	50	72	W 2 Sh	
				NW	Gusty	
Total	1.54	17 days no rain.				

Th means Thunder. St Storm. Gst. Gusty.

Local Meteorology.

1896	Rainfall	Temperature.		Wind.		Remarks.
		Min. deg.	Max. deg.	Direction	&c.	
July 1	....	49	73	N	C	
2	....	47	77	N	C	
3	....	43	79	W	Sh	
4	0.04	47	69	NW	Sh	The greatest
5	....	46	80	NW	F	range of temp-
6	....	42	87	SW	F	erature, 45 deg
7	0.64	50	85	SW	Fg Th Sh	was on the 6th.
8	0.05	55	76	E	C	
9	0.11	57	81	SW	1 C	
10	....	57	73	NE	O Rn	
11	....	46	79	W	SE Fg C	
12	....	49	85	SW	F C	
13	....	50	89	SE	F	Min 50 deg. Max
14	....	53	85	SW	C	90 deg. see May
15	0.02	52	74	NW	N 1 Sh	12th and June
16	0.01	51	62	N	2 Sh	16th.
17	....	49	73	N	C	
18	....	41	83	N	C	
19	....	53	86	W	1 C	
20	....	53	88	SW	F	
21	0.03	55	87	SW	F NW C	
22	....	46	75	NW	F 1 C	Heavy thunder
23	....	43	76	W	F 1 C	Storm at Kirton
24	....	48	74	W	C 1 Th Sh	three Cricketers
25	0.04	51	69	S	1 Sh	struck on the
26	0.80	54	77	SW	1 C	24th, and on
					Hy Th Sh	26th — 2 p.m.
27	....	44	66	W	1 NW C	heavy thunder
28	....	39	75	S	C E F	shower here.
29	0.11	44	75	S	F C Rn	On the 28th,
30	....	55	80	S	C E F	Min. 39 deg.
31	....	54	77	NE	C	Max. 75 deg.
Total	1.85	21 days no Rain.				

Hy Th Sh — Heavy Thunder Shower.

Local Meteorology.

1896	Rainfall	Temperature.		Wind.		Remarks.
		Min. deg.	Max. deg.	Direction	&c.	
Aug. 1	....	45	77	N	O	Temperature— Min 45° Max 77°
2	....	48	72	NE	Sh	
3	....	47	73	SW	C	
4	0.01	47	64	N	Sh	
5	....	37	69	N	1	Sh
6	....	40	76	N		C
7	0.03	44	75	NW	1	Sh
8	0.30	50	72	NE	1	hy Sh
9	0.05	50	67	N	1	Sh
10	....	51	67	N	1	Sh F
11	....	45	71	NW	1	Sh F
12	....	47	76	W	1	C
13	....	53	71	W	1	O
14	....	48	72	NW	2	C
15	....	44	71	NW	1	C
16	....	50	75	NW	1	C
17	....	44	71	SW		C
18	....	53	73	NW		C
19	0.55	40	69	SW	SE	h Th Sh
20	....	44	69	NW	Fg	C
21	0.21	50	67	W		Sh
22	....	44	74	SW		C
23	0.28	52	71	NW	1	Sh
24	....	54	73	W	2	C
25	....	45	65	W	1	C
26	....	37	66	NW	1	C
27	....	38	65	NW	2	Sh
28	....	38	65	W	1	C
29	....	47	70	W		C
30	0.36	50	67	S	2	Sh
31	0.12	52	72	SW		Sh
Total	1.91	22 days no rain.				

Local Meteorology.

1896	Rainfall	Temperature.		Wind			Remarks.
		Min. deg,	Max. deg.	Direction	&c.		
Sep. 1	0.03	51	62	N	O	Sh	
2	0.26	55	66	S		O	
3	0.08	54	58	SW	O	Rn	
4	0.49	43	67	SE	Ms	C	Rn
5	0.19	55	56	NE	2	H	Rn
6	0.02	50	60	N	1	O	
7	0.01	51	69	NE		C	
8	0.22	53	68	E		C	
9	0.35	54	72	SE	C	Th	Sh
10	0.02	51	72	S	Ms	C	
11	0.01	55	73	SE		C	
12	0.22	44	67	S	1	Sh	Hvy Thn. Storm
13	0.02	50	71	S	2	Sh	
14	0.04	47	65	SW	2	Sh	
15	0.22	43	68	W	F	2	H Sh
16	0.06	43	66	SW	1	F	Sh
17	....	47	65	SW	C	2	Sh
18	....	46	69	SW		O	The greatest range of temper- ature, 34 deg was on the 30th
19	....	43	63	W	2	Sh	
20	....	40	60	NW	C	Sh	
21	0.03	32	62	NW	S	C	
22	0.17	45	62	S	SW	2	Sh
23	0.02	52	55	NW	2	Sh	
24	0.54	40	61	NW		Sh	
25	0.21	46	55	SE	N	2	Rn
26	....	43	54	SW		O	
27	0.08	46	67	SW	2	H Sh	
28	....	39	57	NW		Rn	
29	0.01	37	60	NW		Rn	
30	....	33	67	S	Fg	F	

Total 3.30 7 days no rain.

H Sh Heavy Showers.

Local Meteorology.

1896	Rainfall	Temperature		Wind			Remarks.
		Min. deg.	Max. deg.	Direction	&c.		
Octr.	1	....	39	62	SW	Fg C	Temperature.
	2	....	47	60	SW	O	The greatest range of temper-
	3	....	52	64	W	O Sh	ature, 23°, was
	4	0.12	51	57	SW	2 Shs	on the first.
	5	....	35	55	W	1 C Sh	
	6	0.16	35	53	W	O S 2 Sq	
	7	0.07	35	50	SW	C	
	8	....	43	60	S	3 Sq	
	9	0.21	43	58	SW	C 2 Sh	
	10	0.34	38	62	S	1 Th H Rn	
	11	0.29	36	41	NW	2 Sh Sn	Snow Sh
	12	0.01	33	51	N	3 Sh	Eveng Church
	13	0.08	33	52	NE	1 Sh	
	14	0.09	38	56	E	1 C	
	15	0.17	47	50	NE	1 Rn	
	16	0.55	48	56	N	3 Gs Rn	
	17	0.01	44	50	N	Rn F	
	18	0.54	33	45	W	F Sh	
	19	0.03	33	41	SE	Sh Rn	
	20	....	30	51	N	1 F C	
	21	0.06	33	52	N	1 Fg C	
	22	0.05	31	46	N	F Hy Sh	
							Nocte
	23	0.05	27	44	N	F C	
	24	0.08	30	48	SW	Rn	
	25	0.03	30	42	SW	O	
	26	0.04	27	41	SW	Rn C	
	27	0.41	25	45	SW	F Hr Fr Rn	Coldest day of
	28	0.01	30	44	SW	O Sh F	month
	29	0.09	27	48	SE	Sh N F	
	30	...	30	48	NE	F C	
	31	0.10	26	46	NE	Hr Fr C	
Total	3.59	7 days no rain.					

Sq squally

Local Meteorology.

1896	Rainfall.	Temperature.		Wind.		Remarks.
		Min. deg.	Max. deg.	Direction &c.		
Nov.	1	0.08	30	54	E	Sh
	2	0.01	32	48	N	C
	3	....	33	46	N	F
	4	....	27	47	N	F
	5	....	26	48	NW Hr Fr	F
	6	....	23	41	SE	Fg
	7	0.63	21	38	W Fg	Rn
	8	0.02	35	43	N Sh	2 Sq
	9	....	27	44	N	F
	10	....	30	43	W	C
	11	....	32	48	W	C
	12	....	32	46	SW	O
	13	0.04	32	44	SW F	1 Sh
	14	0.24	34	49	SE Fg	SW Sh
	15	0.06	32	45	NW NE	F
	16	....	32	48	NW Fg	NE F
	17	....	30	40	N	O
	18	0.03	36	41	S Sh	W 1 F
	19	....	28	44	SW	F
	20	....	34	47	NW	1 C
	21	....	30	44	W	C
	22	....	41	46	S	C
	23	....	42	45	S	O
	24	....	42	42	SW	O
	25	....	36	40	NE	O
	26	....	39	42	NE	1 O
	27	0.10	33	40	NE	1 C
	28	....	32	41	E	O
	29	....	33	40	E	C F
	30	....	19	36	E H Fr	F
		The coldest day				
Total	1.21	21 days no Rain.				

Local Meteorology.

1896	Rainfall	Temperature.		Wind.			Remarks.
		Min. deg.	Max. deg.	Direction	&c.		
Dec.	1	....	20	40	SE	F C	The lowest temp., and the greatest range 20 deg., were on the 1st.
	2	0.32	33	40	SE	O Sh	
	3	0.11	38	44	S	C Sh	
	4	0.34	37	43	SE	O Sh	
	5	0.05	40	42	NW	SW Sh	
	6	0.09	35	41	S	1 Sh	
	7	....	38	40	NW	Fg	
	8	0.01	30	42	SW	Fg	
	9	0.06	37	43	S	2 Sh	
	10	....	40	44	S		C
	11	....	42	44	S	O W	F
	12	0.17	29	39	S	Fg	Rn
	13	0.01	34	42	N		F
	14	0.22	31	41	N	C	Sh
	15	....	28	37	N		F
	16	....	24	28	SW		Fg
	17	....	25	31	SW	H F	F
	18	0.60	24	31	N	Sh	F
	19	....	24	31	N		F
	20	....	29	35	E		C
	21	....	30	38	NE	F	C
	22	....	28	30	SE		Fg
	23	....	29	30	W		Fg
	24	0.15	26	35	SW	1 C	Rn
	25	0.07	30	40	NW	F	Sh
	26	....	36	50	SW	2	F
	27	0.29	37	43	W	1	Sh
	28	0.17	33	48	SW	2 Rn	NF
	29	0.12	26	36	S		Sh
	30	....	37	48	SW	2	C
	31	....	41	48	SW	1	C
Total	2.78	15 days no rain.					

Monthly Summary of the Weather in 1896.

Local Rainfall, in inches.	Dry Days.	Wet Days.	Rainfall at Greenwich.			Below the Average of 50 years. 1841—90.			Above the Average of 50 years. 1841—90.			Number of Dry Days. Number of Wet Days.		
			1841—90.	1841—90.	1841—90.	1841—90.	1841—90.	1841—90.	1841—90.	1841—90.	1841—90.	1841—90.	1841—90.	1841—90.
January	0.64	20	11	1.36	1.12	0.63	1.12	0.86	1.12	1.09	1.74	22	9	
February	0.61	21	8	1.16	1.12	0.99	1.12	0.57	1.09	0.99	1.40	20	6	
March	0.99	15	16	1.18	1.12	0.57	1.09	0.26	1.09	0.26	1.40	26	22	
April	0.54	18	12	1.18	1.12	0.26	1.09	1.93	1.07	1.07	1.40	16	10	
May	0.22	26	5	1.13	1.12	0.26	1.09	1.93	1.07	1.07	1.40	24	5	
June	1.54	17	13	1.13	1.12	0.26	1.09	1.93	1.07	1.07	1.40	16	14	
July	1.85	21	9	1.13	1.12	0.26	1.09	1.93	1.07	1.07	1.40	16	7	
August	1.91	22	9	1.13	1.12	0.26	1.09	1.93	1.07	1.07	1.40	16	15	
September	3.30	7	23	1.13	1.12	0.26	1.09	1.93	1.07	1.07	1.40	16	8	
October	3.59	7	24	1.13	1.12	0.26	1.09	1.93	1.07	1.07	1.40	16	22	
November	1.21	21	9	1.13	1.12	0.26	1.09	1.93	1.07	1.07	1.40	16	9	
December	2.78	15	16	1.13	1.12	0.26	1.09	1.93	1.07	1.07	1.40	16	22	
Total	19.18	210	155	1.13	1.12	0.26	1.09	1.93	1.07	1.07	1.40	16	160	
			= 865											= 365

One inch of rain is equal to 100 tons on an acre of ground.

Gainsborough had 5 more dry days than the Greenwich average, and 9.24 inches less Rainfall.

Register of Births and Deaths in the Urban District of Gainsborough.

UNDER 5 YEARS IN ITALICS.

Analysis of the Vital and Mortal Statistics of 33 of the largest English Towns during the year 1896.

No.	TOWNS.	Estimated Population of Middle of 1896	Deaths.	Births.	Annual rate per 1000 Living.	Deaths from Principal Zymotic Diseases.	Princ. Z. D.		Deaths from Principal Zymotic Diseases.	Rate per cent. of Deaths of child ⁿ in age to 1 year of age to 1000 Births	Uncertified Deaths
							Deaths.	Princ. Z. D.			
1	London	4421955	135796	88511	30.2	14100	3.14	9	3697	942	2688
2	West Ham	261297	8658	4268	32.6	795	4	117	55	187	158
3	Croydon	118006	3009	1706	25.1	14.2	1.94	233	5	29	62
4	Brighton	120499	3022	1975	24.7	16.1	1.63	199	6	19	32
5	Portsmouth	178639	5006	3009	27.6	16.6	2.11	883	125	20	59
6	Plymouth	90276	2643	1796	28.8	19.6	2.30	210	...	95	3
7	Bristol	230623	6465	3961	27.6	16.9	1.90	444	5	148	59
8	Cardiff	162690	5591	2784	33.8	16.8	2.27	876	3	38	28
9	Swansea	98645	3061	1689	30.5	16.8	1.18	118	2	6	4
10	Wolverhampton	86530	3023	1755	34.4	20.0	3.11	274	...	9	21
11	Birmingham	501241	16603	10600	32.6	20.8	3.57	1823	...	307	148
12	Norwich	108680	3400	1919	30.8	17.4	2.33	257	...	117	4
13	Leicester	198659	6212	3376	30.8	16.7	2.97	599	...	121	50
14	Nottingham	229775	6758	4087	28.9	17.5	2.47	575	...	205	26
15	Derby	101770	2901	1619	28.0	15.7	1.91	197	...	34	11
16	Birkenhead	109343	3527	2133	31.7	19.2	2.97	330	...	115	32
17	Liverpool	632512	22416	14617	34.9	22.7	3.01	1938	...	306	227

18	Bolton	...	120380	3831	2536	31.3	20.7	2.80	344	...	6	40	14	102	48	134	168	0.3
19	Manchester	...	529561	17787	12184	33.0	22.6	3.42	1834	...	570	197	81	360	122	504	176	1.3
20	Salford	...	210707	7480	4848	34.9	22.6	4.10	879	...	202	104	49	189	71	264	199	2.1
21	Oldham	...	143442	3971	2955	27.2	20.3	2.91	425	...	167	56	35	53	23	91	184	0.3
22	Burnley	...	102805	3245	1830	31.0	17.5	2.19	229	...	63	4	48	28	13	73	170	1.4
23	Blackburn	...	129459	3649	2351	27.7	17.9	1.82	238	...	41	9	10	47	34	97	171	2.7
24	Preston	...	113864	3776	2403	32.6	20.8	1.86	217	...	12	3	12	43	26	129	203	4.3
25	Huddersfield	...	100463	2096	1682	20.5	16.5	1.60	163	...	28	19	21	55	13	27	166	2.5
26	Halifax	...	94775	2337	1669	24.3	17.3	1.10	105	...	16	...	21	33	20	15	149	1.7
27	Bradford	...	220809	5939	3840	25.5	10.5	1.58	369	1	107	24	17	104	28	88	143	0.8
28	Leeds	...	402449	12574	7670	30.7	18.8	2.28	937	1	199	71	49	246	87	284	169	0.6
29	Sheffield	...	347278	12011	6797	34.0	19.3	2.91	1024	...	200	102	56	205	101	360	173	3.5
30	Hull	...	220844	7171	4245	31.9	18.9	3.32	745	...	260	57	51	113	62	202	173	2.8
31	Sunderland	...	140386	4879	2828	34.2	19.8	3.00	428	...	143	27	8	76	53	121	158	0.9
32	Gateshead	...	98436	3583	1910	35.8	19.1	3.10	310	...	187	26	18	35	22	72	172	0.9
33	Newcastle-on-Tyne	...	212223	6701	3981	31.1	18.5	2.08	450	...	139	26	39	103	33	110	165	0.5

Analysis of the Vital and Mortal Statistics of 33 of the largest English Towns during the year 1896.



The Cedars
Gainsborough
Oct 16/97

Dear Sir,

I have just received
your acknowledgement of
my "Annual Report" to our
R. S. C. & shall be glad
if you would correct the
following error which I
have discovered since I
sent my Report to you.

Verse -

from the title Vaccination
delete the final - s.

Verse 5 line 5 substitute
less for "trees".

Verse 11 - last line, after
"Mark" put comma.

" 14 line 10 underline
Lesser ever blast!

and you will greatly
oblige Yours faithfully

B. Mackinder

My Librarian

B. M. A.

VACCINATIONS

From the Appendix to the Edinburgh Medical
and Surgical Annual Report for 1895:—
What are the mothers thinking of—
Good looking mothers too.—
When Jenner's great discovery
They foolishly pooh! pooh!
And seem to fancy all is true
That outtaught men proclaim,
With trumpet tongue, while learned meo,
More molest they defame?

Their daughters surely shold they grow
To marriageable age,
Will something have unkind to say
Of what would salutes enrage.
A something 'bont their lips and cheeks,
And e'en the bridge of nose,
The h' nev-combing of their breasts
And arms and legs and toes;
An eye that's blind—both may be so—
An ear that's deaf as well;
And unone wising them to kiss
Or tale of love to tell!

Oh! Mothers think what you have been
So beantiful and fair,
Like roses' opening bloome, and sweet
As sun-lit perfumed air;
Think of your charms, and bow the men
Could scarcely pass you by,
Like bees open a honey raid,
Unmoved by Zephyr's sigh.

Think of the joys which heaven sent
In all its kindest ways,
To fill your cup of happiness
Or bright and doil wet day
And e'en when sorrows floated o'er
Like clouds to cool the brain,
Think how the rainbow sonthed your fears
And gave you joy again!

But they, yee they, your children dear
By love eternal planned,
And modelled with artistic care
By Nature's Sculptor's hand,
Are now, forsooth, thus worthy deemed,
To occupy the place
Which once their parents used to fill
With so much youthful grace.

Can this be true? I trow 'tis not,
As yet it may be said
Britannia's daughters lead the way,
Their lovely mothers led;
Along the path where Finra had
Her choicest treasures spread,
For fairy forms to amble o'er
And bridal feet to tread.

But stay! For these my warning words
Most not be faintly told,
Good looks retained and health preserved,
Are better far than gold;
Prevention is my theme, I write
To guard unguarded mind,
Against the stumbling blocks oft thrown,
Like chaine poor slaves to bind.

Slaves not of ebon:colonred skin;
Alone of all our race,
But slaves of ignorance untold
And knowledge of place.
I write to tell the thousandth time,
What noble Jenner bailed,
For science sang its paeon of
The mystery unveiled.

A pestilence, like tempest streng,
Invaded our fair land,
More dreaded than the cannon's boom
Or bayonetted band;
It sought out every tempting nook,
Where children like to ram,
The cot beside the rippling brook,
The city's gilded bume.

Nor age nor sex escaped its grasp;
The distant and the near
Of kin alike were seized ^{up}, *upon*
In high and lowly sphere,
They killed; or maimed before the eyes
Of weeping friends around,
And left to linger life a full term
On sunnw-stricken ground.

When Jenner came the small-pox paled
Before his sacred light,
Which turned to-day and brighter hours
The darkness of the night.
By rare in-born eagacity,
Lit by a glowing spark
From unseen anvil struck above
His genios to merk,

He saw what none before had seen!
Her veil Dame Nature raised
Just for a moment—'twas enough—
The wide world stood amazed!

For Jenner's introspective mind
A sequence grand fore told.

More precious than a gem-stud crown,
Of emioed hand and gold.

And far up in the future; men
Described the priceless boom,
Which Jenner without patent right
Would give mankind aid soon.
For ere the scientit had tried
His wonders to reveal,
Of busy microscopic life
Our Jenner broke the seal,
Which Nature fixed long years before,
In babynood of time,
Her noblest secrets to conceal
From any less enblime.

Twas Jenner found the antidote
For mortal's inathsme bane,
And thoosands upon thousands have
Been saved from gref and pain;
And e'en from death's remorseless hand,
The great the rich, the poor,
Have been preserved in every clime
The great round world all o'er!
And millions yet will him proclaim
As Jenner ever blest!

Bright as the brilliant evening star
Outvying all the rest.

States

What are our mothers thinking of?—
And English mothers to—
When Jenner's great discovery
They foolishly pooh! pooh!

All science now the reason tells,

What he did not explain,

Why 'tis that 'tis the lesser force

The greater does restrain!

Great soul of Pasteur wake, arise

And wipe the tears from Jenner's eyes!

